10

15

20

25

CLAIMS

What is claimed is

1. A handwriting recognition system, comprising:

a wireless pen, said wireless pen comprising an eraser mode button, said handwriting recognition system performing an eraser mode while said eraser mode button being pressed; and

a tablet, said tablet receiving a plurality of messages to decide the location of said wireless pen and the corresponding mode of said handwriting recognition system, said messages are transmitted from said wireless pen.

- 2. The handwriting recognition system of claim 1, said handwriting recognition system performing a writing mode while said eraser mode being relaxed.
- 3. The handwriting recognition system of claim 1, while the distance between said wireless pen and said tablet exceeding a predetermined distance during a predetermined period, said eraser button being automatically relaxed and then said handwriting recognition system automatically escaping said eraser mode.
- 4. The handwriting recognition system of claim 3, said handwriting recognition system automatically escaping said eraser button mode and performing a writing mode.
- 5. The handwriting recognition system of claim 3, said predetermined period being about 2 to 3 seconds.

10

15

20

25

- 6. The handwriting recognition system of claim 1, the frequency of said handwriting recognition system being changed while the corresponding mode of said handwriting recognition system being changed.
- 7. The handwriting recognition system of claim 1, said tablet comprising a sensing loop.
- 8. The handwriting recognition system of claim 7, said sensing loop being located on the two opposite faces of said tablet.
- 9. The handwriting recognition system of claim 7, said sensing loop being divided into an X-axis system and an Y-axis system.
- 10. The handwriting recognition system of claim 1, said wireless pen having only one coil, said coil connecting with an eraser mode capacitor while said eraser mode being pressed, and said coil being separating away said eraser mode capacitor while said eraser button being relaxed.

11. A wireless pen, comprising:

an eraser mode capacitor;

a writing mode capacitor, the capacitance of said writing mode capacitor being different to the capacitance of said eraser mode capacitor;

a coil which is located in one terminal of said wireless pen; an eraser mode button, said coil being only connected with said eraser mode capacitor while said eraser mode button being pressed; and a writing mode button, said coil being only connected with said

10

15

20

25

writing mode capacitor while said writing mode button being pressed.

- 12. The wireless pen of claim 11, the frequency of the electromagnetic wave produced by the connection between said coil and said eraser mode capacitor being different to the frequency of the electromagnetic wave produced by the connection between said coil and said writing mode capacitor.
- 13. The wireless pen of claim 11, the function of said wireless pen being like on an eraser while said eraser mode button being pressed.
- 14. The wireless pen of claim 11, the function of said wireless pen being like on a pen while said writing mode button being pressed.
- 15. The wireless pen of claim 11, both said eraser mode button and said writing mode button being providing by a mode switch button, said coil being connected with said eraser mode capacitor while said mode switch button being pressed, and said coil being connected with said writing mode capacitor while said mode switch button being relaxed.
- 16. The wireless pen of claim 11, both said eraser mode button and said writing mode button being providing by a mode switch button, said coil being connected with said eraser mode capacitor while said mode switch button being relaxed, and said coil being connected with said writing mode capacitor while said mode switch button being pressed.
 - 17. The wireless pen of claim 11, both said eraser mode

10

15

20

25

button and said writing mode button being providing by a mode switch device, said coil being connected with said eraser mode capacitor while said mode switch button being switched to said eraser mode, and said coil being connected with said writing mode capacitor while said mode switch button being switched to said writing mode.

18. A method of using a handwriting recognition system; comprising:

turning on a tablet and a wireless pen, said tablet being used to receive a plurality of messages which are transmitted from said wireless pen; and

moving said wireless pen over said tablet so let said message be received by said tablet, and switching the current mode of said handwriting recognition system, wherein the terminal with coil of said wireless pen always is more closed to said tablet than the other terminal.

- 19. The method of claim 18, further comprising the step of pressing an erase mode button to activate an eraser mode and the step of pressing a writing mode button to activate a writing mode, wherein both said eraser mode button and said writing mode button are located in and on said wireless pen.
- 20. The method of claim 18, further comprising the step of changing the distance between said wireless pen and said tablet to change the strength of said messages, wherein current mode of said handwriting recognition system being switched whenever the strength of message being less a predetermined strength.